

REMARKS

In the Office Action, claims 40 and 41 were allowed, and claims 1-39 were rejected. Applicants thank the Examiner for allowing claims 40 and 41. By this Reply and Amendment, claims 20, 27, 38 and 39 have been amended, and claims 1-41 remain pending in the present application. All claim amendments are fully supported throughout the description and figures of the specification. No new matter has been added.

Claims 1, 3-10, 14-17 and 38-39 were rejected under 35 USC 102(e) as anticipated by the French reference, US Patent Application No.: 6,595,296. Applicants respectfully traverse this rejection, however independent claims 38 and 39 have been amended to clarify aspects of the claim language.

The French reference describes a hydraulic control assembly that can be used to control downhole tools. In Figure 1A, the tool is in a deactivated configuration, and the hydraulic assembly 10 is configured such that the tool control fluid outlet 16 is isolated from control fluid by a shuttle valve 24. (See column 6, lines 22-26). In Figure 2, the hydraulic control assembly 10 has been moved to an open configuration so that the tool is in an activated configuration. The hydraulic control assembly 10 and the tool are moved to this configuration by moving a gear rod 34 axially towards and into contact with the shuttle valve 24. Further axial movement of gear rod 34 moves shuttle valve 24 until shuttle valve shoulder 28 moves past inlet port 18. This allows fluid communication between port 22 and inlet port 18 so that tool control fluid can flow from the outlet 16 to the tool to activate the tool. (See column 7, lines 4-12). Subsequently, the hydraulic control assembly 10 can be moved to a closed configuration, as illustrated in Figure 3. This is accomplished by moving gear rod 34 further in an axial direction. The additional axial movement of the shuttle valve beyond the position shown in Figure 2 causes shuttle valve shoulder 30 to seal the inlet port 18 and maintain fluid pressure in the control conduit coupled to the tool. Once the hydraulic control assembly 10 reaches the position illustrated in Figure 3, the assembly 10 is "spent" and must be removed and reset for subsequent use. (See column 7, line 57, through column 8, line 4). Accordingly, the French reference describes a spool valve that

must be mechanically manipulated by a mechanical actuator, i.e. gear rod 34, to control fluid flow therethrough. The device does not respond to a blow-out to shut an otherwise open valve.

The French reference fails to disclose or suggest numerous elements of the subject claims. For example, the reference fails to disclose or suggest a shuttle valve that enables pressure transfer through a control line from both a downhole and an uphole direction, wherein the shuttle valve is "adapted to seal the control line when a pressure spike occurs from the downhole direction" as recited in independent claim 1. Similarly, the reference fails to disclose or suggest a valve able to transfer pressure through a control line from both a downhole and an uphole direction during normal operating conditions while being adapted "to automatically seal the control line when a pressure spike occurs from the downhole direction" as recited in amended, independent claim 38. The reference also fails to disclose or suggest a method of sealing a control line with a valve in case of a blow-out by "utilizing the pressure resulting from the blow-out" combined with transferring pressure through the valve and control line from both a downhole and an uphole direction during normal operating conditions, as recited in amended, independent claim 39. Accordingly, these independent claims are believed patentable over the French reference.

Claims 3-10 and 14-17 ultimately depend from independent claim 1. Accordingly, these dependent claims are patentable over the cited reference for the reasons provided above with respect to independent claim 1 as well as for unique subject matter recited in each of these dependent claims.

Claims 2, 20-32 and 34-36 were rejected under 35 USC 103(a) as being unpatentable over the French reference. Applicants respectfully traverse this rejection, however independent claims 20 and 27 have been amended to clarify aspects of the claim language.

As discussed above, the French reference does not describe or suggest a valve that is able to transfer pressure through a control line from both a downhole and an uphole direction while automatically sealing in the event of a blow-out. With specific reference to the claims, the French reference provides no disclosure that would suggest a valve that is able to "automatically

seal the control line in case of a blow-out" wherein the valve is able to transfer pressure through the control line from both a downhole and an uphole direction during normal operating conditions, as recited in amended, independent claim 20. Similarly, the French reference provides no suggestion for transferring pressure through a valve and control line from both a downhole and an uphole direction during normal operating conditions and sealing the control line with a valve in case of a blow-out, the sealing being "accomplished automatically with the pressure of the blow-out" as recited in amended, independent claim 27. Accordingly, no *prima facie* case of obviousness can be established with respect to these independent claims.

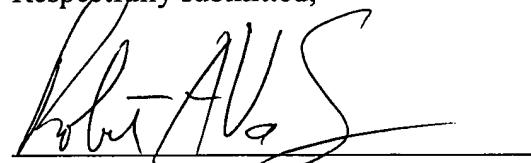
Claims 2, 21-26, 28-32 and 34-36 ultimately depend from one of the independent claims 1, 20 or 27 discussed above. Accordingly, these dependent claims are patentable over the cited reference for the reasons provided above with respect to their corresponding independent claims as well as for unique subject matter recited in each of these dependent claims.

Claims 11-13 and 33 were rejected under 35 USC 103(a) as being unpatentable over the French reference in view of the Schultz et al. reference, US Patent No.: 6,536,530. Applicants respectfully traverse this rejection. However claims 11-13 ultimately depend from independent claim 1, and claim 33 ultimately depends from amended, independent claim 27. Accordingly, these dependent claims are patentable over the cited references for the reasons provided above with respect to their corresponding independent claims as well as for unique subject matter recited in each of these dependent claims. The Schultz et al. reference provides no additional teaching that would obviate the deficiencies of the French reference.

Claims 18, 19 and 37 were rejected under 35 USC 103(a) as being unpatentable over the French reference in view of the Schwendemann reference, US Patent No.: 6,450,263. Applicants respectfully traverse this rejection. However claims 18, 19 ultimately depend from independent claim 1, and claim 37 ultimately depends from amended, independent claim 27. Accordingly, these dependent claims are patentable over the cited references for the reasons provided above with respect to their corresponding independent claims as well as for unique subject matter recited in each of these dependent claims. The Schwendemann reference provides no additional teaching that would obviate the deficiencies of the French reference.

In view of the foregoing remarks, all pending claims are believed to be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,



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